


# User Guide

# Deringer™

For all Deringer Series Valves

## Important Installation Information Read before installing

**⚠ WARNING**

 Read this manual **BEFORE** using this equipment. Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment.

**THINK SAFETY FIRST**

Keep this manual for future reference.

**⚠ WARNING**

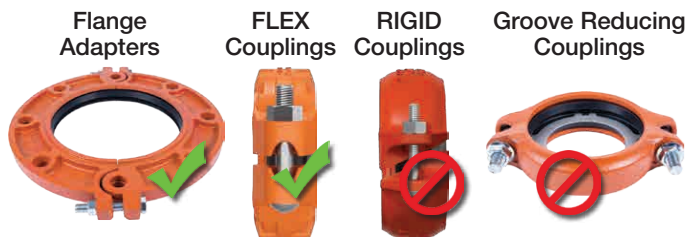
You are required to consult the local building and plumbing codes prior to installation. If the information in this manual is not consistent with local building or plumbing codes, the local codes should be followed. Inquire with governing authorities for additional local requirements.

**⚠ WARNING**

**WARNING:** Make sure to thoroughly flush out water lines prior to installation of a Deringer. If water lines are **NOT** thoroughly flushed, debris will damage the check and relief valves and will not be covered under warranty.

**For Deringer Models 20/20X/30/30X/40/40X/50/50X**

Install with FLEX Couplings or Flange Adapters Only. **DO NOT** use RIGID Couplings or Groove Reducing Couplings!



**For Deringer Models 30/30X/30G/30GX/50/50X/50G/50GX**

### Micro Bypass Orientation

Please follow these instructions to properly orient the meters on the Deringer 30 & 50 micro bypass assemblies:



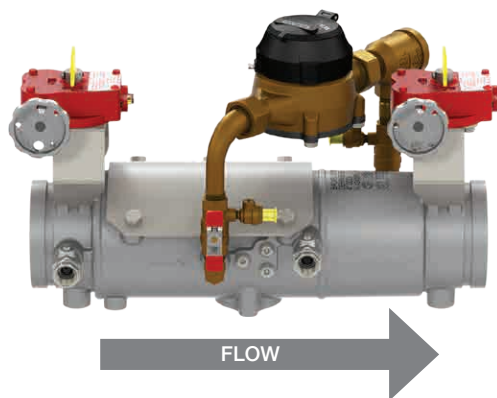
1. The Deringer water meters are rotated 90 degrees during shipping to protect the plastic register from damage.



2. Using an adjustable wrench loosen the meter couplings on both sides of the meter and rotate the meter into the proper orientation.



3. Using an adjustable wrench tighten the meter couplings on both sides of the meter (proper meter orientation).

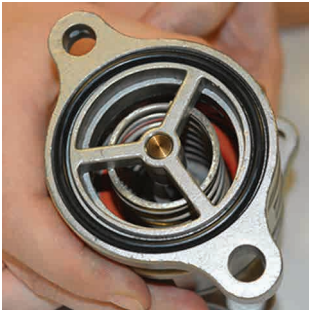
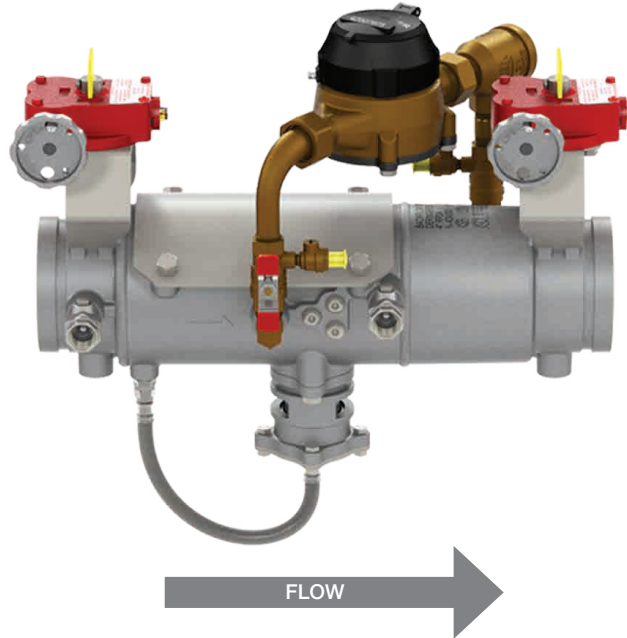


For additional detailed maintenance and repair instructions, including videos, visit [BackflowDirect.com/downloads.html](http://BackflowDirect.com/downloads.html)

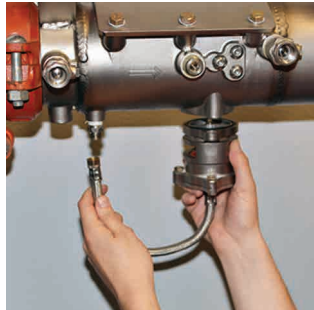


## Relief Valve Installation

Please follow these instructions to properly install the relief valve to the main body:



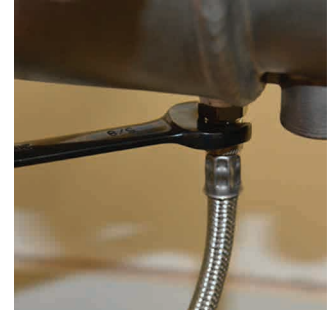
1. Before installing the relief valve, make sure the O-Ring is in the groove on the top of the relief valve. Apply a small coating of lubricant to O-Ring.



2. Mount the relief valve to the relief valve port on the bottom side of the main valve body.



3. Use a 9/16" wrench to attach the two relief valve mounting bolts. Tighten both bolts.



4. Use an adjustable wrench to connect the relief valve sensing line to the sensing line body coupler.

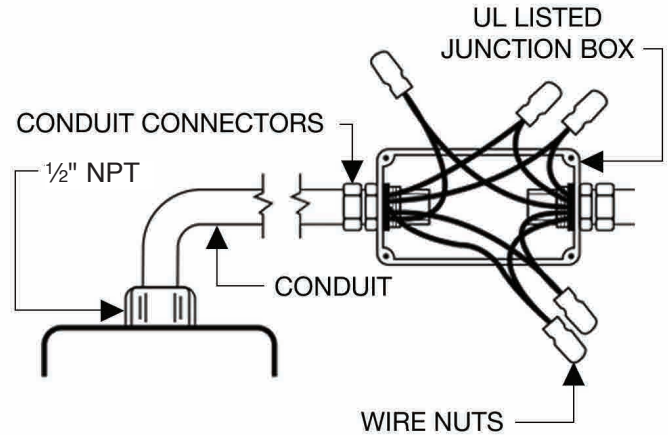
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## Gear Box Wiring Installation

1. The supervisory switch assembly contains two single pole, double throw, pre-wired switches. A primary and an auxiliary.
2. Switch ratings:
  - 10 amps @ 125 or 250 VAC/60 Hz
  - 0.5 amps @ 125 VDC
  - 0.25 amps @ 250 VDC
3. Primary and Auxiliary, supervise the valve in the "OPEN" position.
4. Primary has two #18 insulated wires per terminal, permitting complete supervision of leads. Auxiliary has one #18 insulated wire per terminal. This double circuit allows for the operation of two separate electrical devices (audible alarms, indicating lights, etc.) in close proximity to the valve installation.
5. A #14 insulated ground lead (green) is provided

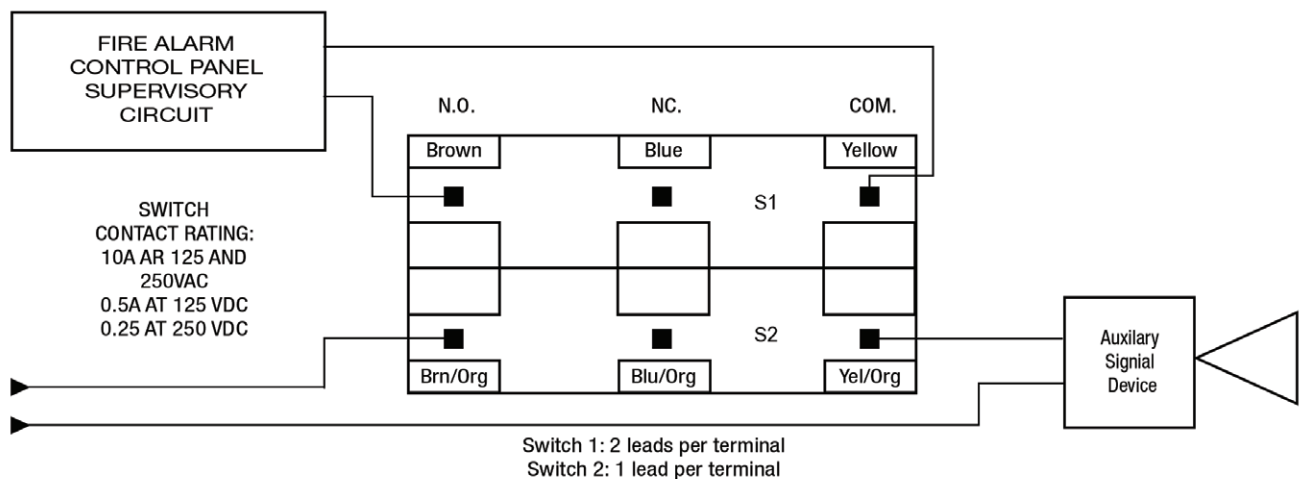
**Primary (S1)** For connection to a supervisory circuit of a UL Listed alarm control panel

**Auxiliary (S2)** For connection to auxiliary devices per the authority having jurisdiction



<b>S1</b>	Normally Closed: (2) Blue Normally Open: (2) Brown Common: (2) Yellow
<b>S2</b>	Normally Closed: Blue with Orange Stripe Normally Open: Brown with Orange Stripe Common: Yellow with Orange Stripe

*NOTE: The below diagram shows a connection between terminals (S1: Yellow / S2: Yellow with Orange Stripe) and the normally Open Terminals (S1: Brown / S2: Brown with Orange Stripe). In this example the signal switch will remain open (No current through switch) as long as the valve remains Fully Opened. Once the Valve begins to close the signal switch will change from open to close (current will flow through switch). Only S1 (two leads per terminal) may be connected to the fire alarm control panel. The connection of the alarm switch wiring shall be in accordance with NFPA 72 and the auxiliary switch per NAPA 70 (NEC). Remember to cap off any unused wire and that your conduit connections are water tight.*



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## Air Gap Assembly Applications & Limitations

An Air Gap Assembly (attached to relief Valve) will capture and evacuate light to moderate water discharge from the Relieve Valve caused by daily fluctuation in system/supply pressure.

**An Air Gap Assembly will NOT capture and evacuate the Maximum Relief Valve Discharge Rate caused by catastrophic valve or system failure.**

An auxiliary drain (separate and independent of the Air Gap Assembly) is REQUIRED and MUST be properly sized for the Maximum Relief Valve Discharge Rate. Ames® shall not be responsible for any damage caused by lack of auxiliary drain, location of auxiliary drain or undersized auxiliary drain. If the installer does not clearly understand this requirement DO NOT install the RP/RPDA & Air Gap Assembly.

### Ames Air Gaps Include:

- Air Gap drain mounting bracket
- Air gap drain shield
- Air Gap drain reducer
- All required hardware



**Limited Warranty:** Ames Fire & Waterworks (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

**THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**



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**USA: Control Valves** T: (713) 943-0688 • F: (713) 944-9445 • AmesFireWater.com

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